

1330.0 - Education News, October 2010

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Education News - October, 2010

This newsletter highlights the latest curriculum related teaching resources, student activities and statistical tools that have been developed by ABS Education Services as well as other ABS resources that are useful for schools.

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1. CensusAtSchool News



2010 CensusAtSchool Summary Data NOW AVAILABLE

Summary data from the 2010 CensusAtSchool project is now available to view online. This summary data is useful in many ways such as looking at trends, habits or lifestyle of Australian students. You can also make comparisons of students between states and year levels.

The 2010 summary data contains an array of interesting results:

- The favourite music for boys is Rap (21%) while Pop music is most popular with girls (39%)
- 85% of Year 5 students take action to recycle household rubbish
- Cereal was the most popular breakfast food for students from Years 4 through to Year 12
- The car was the most common way for Australian students to get to school everywhere except Tasmania where the most common transport to school was by bus (40%)
- AFL football (18%) and Soccer (17.6%) are the most popular sports activities for male students whilst netball (21.6%) is the most popular sport for females.

The [2010 Summary Data](#) is available from the Education Services website. Please note that this data is **only** made up from Australian students who voluntarily completed the questionnaire; it is not representative of all Australian students.

Teacher Registrations now open

Teachers new to the CensusAtSchool project can set up a CensusAtSchool Teacher Account from the CensusAtSchool webpages. It's quick and easy to complete! Choose your school using a postcode or keyword search then create a username and password. Once you have set up your account, it will remain active year after year.

Teachers who have previously set up a Teacher Account do not need to re-register. You can simply log on using the CensusAtSchool Account Login from the CensusAtSchool webpages. If you have forgotten your username or password go to the Forgotten Password section and submit your registered email address.

The Teacher Account is used to generate Student Access Numbers (SAN) that students need in order to submit a questionnaire in 2011.

Remember, the more schools that participate, the richer the data resource for teachers and students to use in the classroom.



More Quick C@S Mathematics Activities Available


View the latest Quick C@S Mathematics Activities available online including more activities for Year 11 and Year 12 students. All Quick C@S Mathematics lessons are designed to take about 20 minutes in the classroom and there are activities for all year levels from Grade 5 to Year 12. Each activity can be used as is, or you can modify them for your class and learning environment.



Solutions and Marking Rubrics NOW AVAILABLE for C@S Mathematics Extended Lessons

Our Teacher Consultants Jean Arnott and Mary-Anne Aram have been busy adding Teacher Solutions and Marking Rubrics to the CensusAtSchool Mathematics Extended (CaSMa) lessons already available online. Solutions for each lesson include teachers' notes, whilst Marking Rubrics cover the following areas of proficiency: Understanding, Fluency, Problem Solving and Reasoning. Each individual lesson contains Teacher Solutions and Marking Rubrics as Word attachments at the bottom of the individual lesson page.

Below is an example of the Marking Rubric available with the CaSMa01 lesson on Eye Colour:

 CaSMa_01 Rubric Eye Colour Student Name: _____ Class: _____ Date: _____		National Curriculum Strand: Statistics and Probability Year Levels: 5 - 8 General Capabilities: Numeracy, Thinking skills, Creativity				
Proficiency	Criteria					
	4	3	2	1	0	
Understanding	Q1 Tallies all frequencies. Q6 Creates appropriate frequency table using SORT and COUNTIF functions in Excel to obtain results. Q10 Correctly calculates all percentages and fractions.	Q1 Tallies most frequencies. Q6 Creates appropriate frequency table. Q10 Attempts most percentage and fractions calculations.	Q1 Tallies some frequencies. Q6 Attempts frequency table. Q10 Attempts some percentage and fractions calculations.	Q1 Attempts to tally frequencies. Q6 Incomplete. Q10 Incomplete.	Q1, 6, 10 Not attempted.	
Fluency	Q3 Chooses side by side graphs for comparison. Q7, 11 Chooses appropriate graphs and completes thoroughly.	Q3 Chooses appropriate individual graphs. Q7, 11 Chooses appropriate graphs and completes clearly.	Q3 Attempts graphs for comparison. Q7, 11 Chooses appropriate simple graphs and completes some.	Q3 Incomplete graphs. Q7, 11 Attempts to complete graphing.	Q3, 7, 11 Graph attempted.	
Problem Solving	Q2, 8, 13 Accurately makes comparisons.	Q2, 8 Accurately makes comparisons. Q13 Has difficulty making comparisons with percentages.	Q2, 8 Simple comparisons.	Q2, 8 Limited comparisons.	Q2, 8 Comparison attempted.	
Reasoning	Q4, 9, 12, 14 Explains reasons behind decisions or procedures accurately.	Q4, 9, 12, 14 Mostly explains reasons behind decisions or procedures.	Q4, 9, 12, 14 Attempts to explain reasons behind decisions or procedures.	Q4, 9, 12, 14 Incompletely explains reasons behind decisions or procedures.	Q4, 9, 12, 14 behind decisions or procedures not attempted.	

Teacher Comments:

FINAL MARK:



Become a Fan of CensusAtSchool on Facebook today

Did you know that CensusAtSchool has a Facebook page. Become a fan of us on Facebook to join the CensusAtSchool community!

Our Facebook page is a fantastic opportunity for you to discuss CensusAtSchool and share your views with other teachers and users of CensusAtSchool. Discuss the new 2010 Data, how you will use CensusAtSchool in the classroom, and share tips with other teachers to make the most of the CensusAtSchool experience!

Become a fan of our Facebook page – just visit the link [Facebook](#) and click 'like' – you will also receive regular updates about CensusAtSchool. Join the CensusAtSchool Facebook community today. It's fun!

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2. STATS QUEST: We Want Your Students' Work for Our Community Pages

Student work for the online Community pages

Have your students been using lessons or data from the ABS? Teachers are invited to submit copies of exemplary student work by post, fax or email to the ABS Education Services Unit. From these, student work will be selected to be posted on the Education Services web pages with acknowledgement given to the student and the school.

You can find the submission form on our web pages Education Services For Teachers and clicking on the Stats Quest and Competitions link.

All students who submit work, regardless of whether or not it is displayed on our web pages, will be acknowledged with a certificate... a great way to reward students and promote high quality work in your classroom!

Please note that, unfortunately, we are unable to return original work samples.



Do you have a classroom idea that uses ABS data or ABS Education products? Let us know at education@abs.gov.au and we can share it with schools around Australia.

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3. An Idea for the Classroom - Mathematics

Article created by Jean Arnott - Maths Specialist Teacher Consultant

Many of the Quick C@S lessons encourage the use of Excel as an investigative tool. When a lesson uses Excel, each step is supported by an appropriate screen dump. The following investigation sets out to use CensusAtSchool data to discover whether or not swimmers have longer torsos than other athletes. Required Excel skills include: deleting rows, using a formula to calculate the mean and using conditional formatting to select a particular characteristic in the sample.

The student worksheet for this activity is available from the [CensusAtSchool Mathematics Quick Activities](#) page on the ABS website by selecting "[Do Swimmers have Longer Bodies than Runners?](#)".

Do Swimmers have Longer Bodies than Runners?

A researcher believes that swimmers have lower bellybutton heights than runners. His theory is that a lower bellybutton means a longer torso and a longer torso is an advantage for a swimmer compared to a runner. CensusAtSchool collects data on height, belly-button height and favourite sport. If we assume that students who choose swimming as their favourite sport are good swimmers we can investigate the claim.

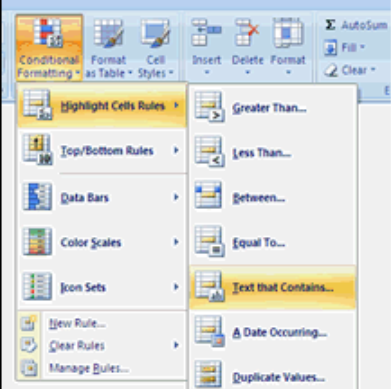
In this investigation you are going to compare the height and bellybutton height of students who select swimming as their favourite sport with the height and bellybutton height of the sample as a whole.

1. In your sample of 200 delete any columns except Height, Belly-Button Height and Favourite Sport.

2. Select and delete any rows containing data that are obvious errors.

3. Select the column that has the Favourite Sport data. Find the mean height and belly-button height. 4. Divide mean belly-button height by mean height to find the fraction of the height that is the belly-button height.

4. Highlight the swimmers by selecting the Favourite Sports column then Conditional Formatting>Text that Contains...> and typing "Swimming" then choose your highlight



5. Copy and paste the height and belly-button heights of the swimmers into a new sheet and repeat steps 3 and 4

6. From your results is it true to say that the belly-button height of swimmers is lower than the population as a whole?

We would love to hear feedback from anyone who finds the activity useful or has ideas for improving it.

Do you have a classroom idea that uses ABS data or ABS Education products? Let us know at education@abs.gov.au and we can share it with schools around Australia.

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4. International Statistics Poster Competition - Get Ready for 2011



The International Statistical Literacy Project is running the second International Statistics Poster Competition for students. Currently there are 20 countries involved. Each country coordinates a national competition with the winning entries sent to the ISLP who choose an international winner. Winners will be acknowledged at the 58th ISI World Statistics Congress in Dublin, Ireland in August 2011.

The Education Services Unit of Australian Bureau of Statistics is coordinating Australian entries. The theme for the competition is 'Environment' and as well as ABS data, your students could use the [CensusAtSchool](#) results from 2006, 2008 and 2010 in their posters.

Categories: There are two categories:

students born in 1995 and younger and students born in 1992 or younger.

Teams: must be either 2 or 3 students and registered with ISLP by a teacher

Format: physical—A1 (841×594 mm) or electronic—file size maximum 2 MB

Competition Time Line

Action	Date
International Registration opens	13/09/2010
Australian entries close	16/05/2011
Australian judging	17/05 - 27/05/2011
Australian winners announced	30/05/2011

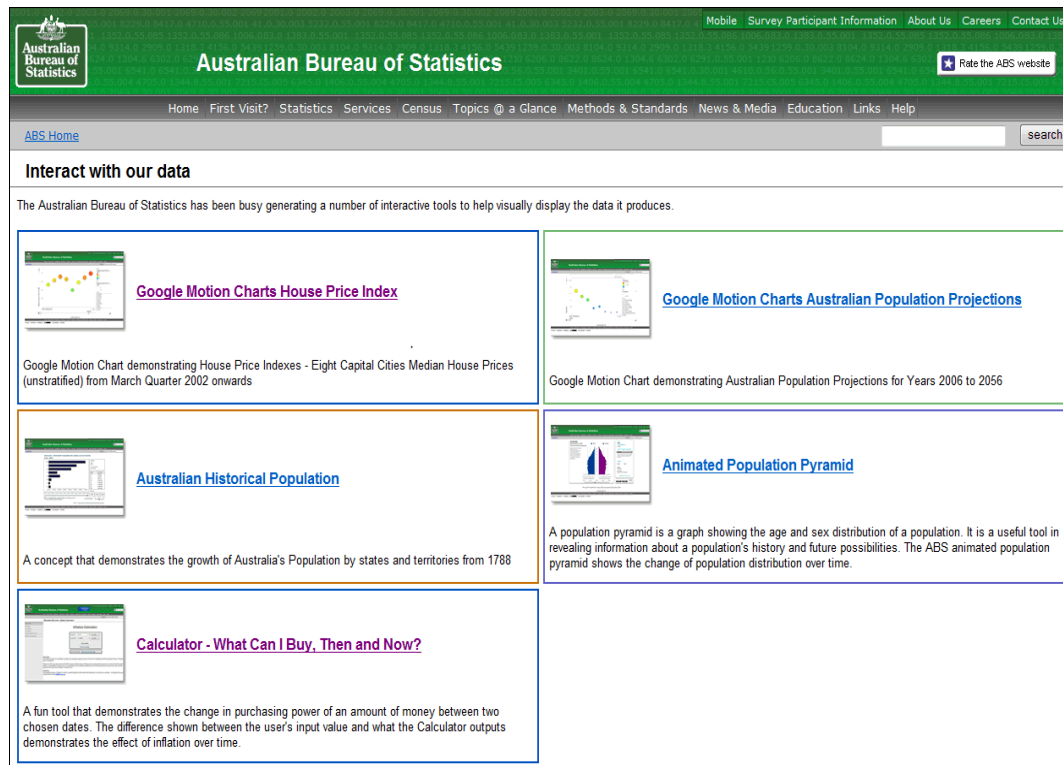
Australian winning entries sent to international judges	by 30/06/2011
International winners announced	30/07/2011

Registration, guidelines and teacher's notes for the competition can be found on the ISLP website.

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5. Interact with ABS Data!

Recently the ABS released a number of new interactive tools to help visually display the data it produces. Called Interact with our data the tools include animated graphs of population and relative population change, capital city house price movements over time and more.



Australian Bureau of Statistics

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Interact with our data

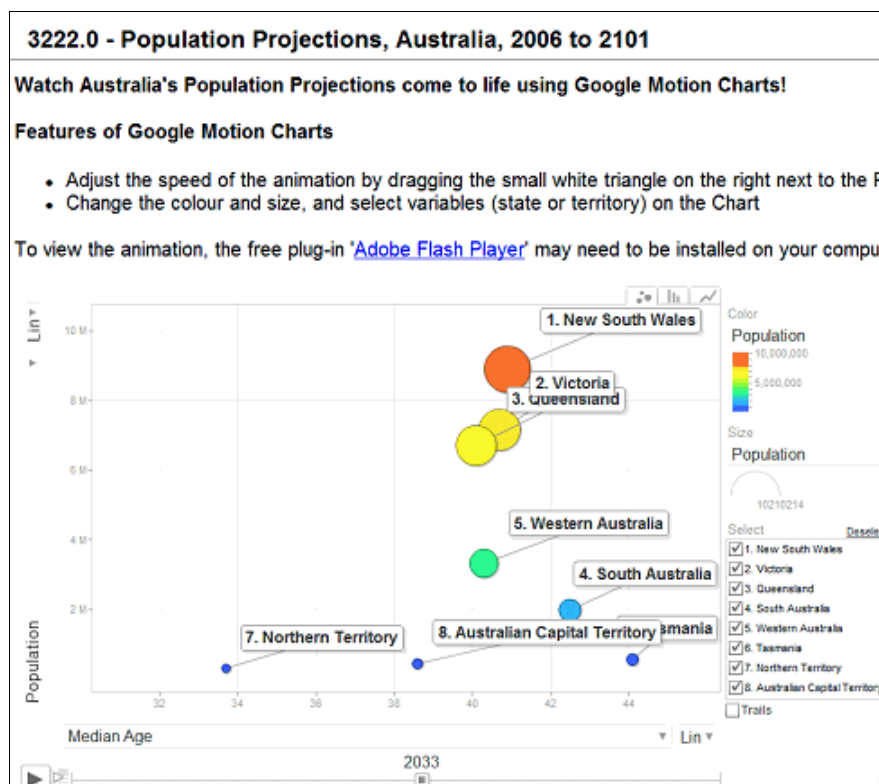
The Australian Bureau of Statistics has been busy generating a number of interactive tools to help visually display the data it produces.

- Google Motion Charts House Price Index**
Google Motion Chart demonstrating House Price Indexes - Eight Capital Cities Median House Prices (unstratified) from March Quarter 2002 onwards
- Google Motion Charts Australian Population Projections**
Google Motion Chart demonstrating Australian Population Projections for Years 2006 to 2056
- Australian Historical Population**
A concept that demonstrates the growth of Australia's Population by states and territories from 1788
- Animated Population Pyramid**
A population pyramid is a graph showing the age and sex distribution of a population. It is a useful tool in revealing information about a population's history and future possibilities. The ABS animated population pyramid shows the change of population distribution over time.
- Calculator - What Can I Buy, Then and Now?**
A fun tool that demonstrates the change in purchasing power of an amount of money between two chosen dates. The difference shown between the user's input value and what the Calculator outputs demonstrates the effect of inflation over time.

Watch how the population has changed in your State/Territory since 1788 and how it compares to other States/Territories.

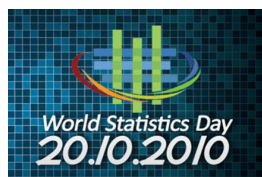
Calculate what the purchasing power of \$5 in 1901 would be in 2008 (you can use values up to \$10,000,000 and years between 1901 and 2010).

See how the population and median age for each State and Territory is projected to change between now and 2056.



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6. Celebrate World Statistics Day on October 20, 2010



Celebrate World Statistics Day with your students on 20 October this year. World Statistics Day has been established by the United Nations Statistical Division to highlight the role of official statistics, the many achievements of national statistical systems and to raise awareness of the importance of statistics. Countries from Armenia to Zimbabwe will be celebrating the first World Statistics Day.

In the Maths classroom you could use October 20 to complete some of the Quick Stats lessons from the ABS Education Services website. You could also raise the importance of statistics by examining and discussing some of the many statistics collected by the ABS and other nations' national statistical offices. From the World Statistics Day website, your students could use the UN Data page to compare countries on different measures. This also allows you to discuss how data is collected, when data is comparable, what assumptions underlie any particular data set and many other questions that will improve your students' statistical literacy.

The Australian Bureau of Statistics will be celebrating World Statistics Day by:

- releasing the conclusions and recommendations from the NatStats 2010 Conference,
- releasing the full results of the study into Community Trust in statistics,
- launching a new publication promoting the use of statistics for evidence based policy, and
- holding events in ABS offices

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7. Conferences



Canberra Mathematics Association Conference

Our Specialist Maths Teacher Consultant and Education Services Manager Mary-Anne Aram recently attended the Canberra Mathematics Association (CMA) Mathematics and Sustainability Conference which took place over 20th and 21st of August at the Australian Catholic University in ACT. Mary-Anne led teachers and other education specialists on an interesting presentation around the CensusAtSchool project. Many of the conference attendees were thrilled with the hands on approach to

using the CensusAtSchool Random Sampler tool which is available online via the ABS Education website.

Future Conferences

The Education Services Unit of ABS will have a representatives at various conferences over the following months:

October

Maths Association of New South Wales

November

Maths Association of Western Australia

December

Mathematical Association of Victoria

Maths Association of South Australia

January

Australian Geography Teachers Association

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8. Recently Released Publications

Measures of Australia's Progress, 2010 (cat. no. 1370.0)

This publication is designed to help Australians address the question, 'Is life in Australia getting better?'. MAP provides a digestible selection of statistical evidence in answer to this question. Australians can use this evidence to form their own view of how our country is progressing.

Internet Activity, Australia, June 2010 (cat. no. 8153.0)

Contains details of internet activity supplied by Internet Service Providers (ISPs) in Australia. It includes information on internet subscribers and their type of connection, the type of user (business/household), the volume of data downloaded, the speed of the internet connection and the location of the subscriber (by state or territory).

Sales of New Motor Vehicles, Australia, July 2010 (cat. no. 9314.0)

Contains monthly information on sales of new motor vehicles in each state/territory sourced from the Federal Chamber of Automotive Industries. Data are provided in original, seasonally adjusted and trend estimated terms. Sales data are available for passenger vehicles, sports utility vehicles, other vehicles and total vehicles at the state/territory and national levels.

Population by Age and Sex, Regions of Australia, 2009 (cat. no. 3235.0)

This product contains estimates of the resident population by age (in five-year age groups up to 85 and over) and sex as at 30 June 2004 and 30 June 2009. The areas for which estimates are provided are Local Government Areas (LGAs), Statistical Local Areas (SLAs), Statistical Divisions (SDs), Statistical Subdivisions (SSDs) and states and territories of Australia, according to the 2009 edition of the Australian Standard Geographical Classification (ASGC).

Cultural Funding by Government, Australia, 2008-09 (cat. no. 4183.0)

Contains estimates of funding for arts and cultural activities by the three levels of government in Australia.

Energy, Water and Environment Management 2008-09 (cat. no. 4660.0)

This publication presents estimates of energy expenditure and usage, environmental and water management practices and eco-innovation by Australian businesses, for the 2008-09 reference year. These data were compiled from the Energy, Water and Environment Survey conducted by the Australian Bureau of Statistics (ABS). This is the first time the collection has been conducted.

Mental Health of Young People, 2007 (cat. no. 4840.0.55.001)

This article provides a brief overview of the mental health of young people aged 16-24 years in Australia. It includes information on the prevalence of mental disorders for people in this age group, as well as their socioeconomic characteristics, level of impairment and the health service usage of young people with mental illness. Data are sourced from the 2007 National Survey of Mental Health and Wellbeing.

Migration Australia, 2008-09 (cat. no. 3412.0)

This publication brings together statistics on international migration into and out of Australia, internal migration (including interstate and intrastate) within Australia and information on overseas-born residents of Australia.

Australian Economic Indicators, August 2010 (cat. no. 1350.0)

A monthly compendium of economic statistics, presenting comprehensive tables, graphs, commentaries, feature articles and technical notes. Primarily a reference document, the publication provides a broad basis for analysis and research on the Australian economy and includes statistics that can be applied to both macro-economic and sectoral analyses. The publication contains statistics under the following headings: national accounts, international accounts, consumption and investment, production, prices, labour force and demography, incomes and labour costs, financial markets, state comparisons and international comparisons.

You can view the full range of previously released publications from the ABS under **Previous Releases**.

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9. Contact Details

How to contact **ABS Education Services**

Free Call: 1800 623 273

email: education@abs.gov.au

Mail: GPO Box 2796
Melbourne, 3001

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